XRLED 300 SPOT

PR-8157

This product manual contains important information about the safe installation and use of this projector. Please read and follow these instructions carefully and keep this manual in a safe place for future reference.

PR LIGHTING LTD.
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Please note that as part of our ongoing commitment to continuous product development, specifications are subject to change without notice. Whilst every care is taken in the preparation of this manual we reserve the right to change specifications in the course of product improvement. The publishers cannot be held responsible for the accuracy of the information herein, or any consequence arising from them.
Every unit is tested completely and packed properly by the manufacturer. Please make sure the packing and / or the unit are in good condition before installation and use. Should there be any damage caused by transportation, consult your dealer and do not use the unit. Any damage caused by improper use will not be assumed by the manufacturer and / or dealer.

ACCESSORIES

These items are packed together with the projector:

Name	Quantity	Unit	Remark
G clamps	2	Pcs	
XLR cable	1	Pc	with plug and socket
Safety cord	1	Pc	
This manual	1	Pc	
Ω clamps	2	Pcs	Optional

SAFE USAGE OF THE PROJECTOR

When unpacking and before disposing of the carton check there is no transportation damage before using the projector. Should there be any damage caused by transportation, consult your dealer and do not use the apparatus.

The projector is for indoor use only, IP20. Use only in dry locations. Keep this device away from rain and moisture, excessive heat, humidity and dust. Do not allow contact with water or any other liquids.

The projector is only intended for installation, operation and maintenance by qualified personnel.

The projector must be installed in a location with adequate ventilation, at least 50cm from adjacent wall surfaces. Be sure that no ventilation slots are blocked.

Do not project the beam onto inflammable surfaces, minimum distance is 1.3m. 1.3m

Avoid direct exposure to the light from the lamp. The light is harmful to the eye.

Do not attempt to dismantle and/or modify the projector in any way.

Electrical connection must only be carried out by qualified personnel.

Before installation, ensure that the voltage and frequency of power supply match the power requirements of the projector.

It is essential that each projector is correctly earthed and that electrical installation conforms to all relevant standards.

Do not connect this device to any other types of dimmer apparatus.

Make sure that the power-cord is never crimped or damaged by sharp edges. Never let the power-cord come into contact with other cables. Only handle the power-cord by the plug. Never pull out the plug by tugging the power-cord.

The projector should always be installed with a secondary safety fixing. A safety cord is supplied for this; it should be attached as shown in “installing the projector” section.

Shields and lens shall be changed if they have become visibly damaged to such an extent than their effectiveness is impaired, for example by cracks or deep scratches.

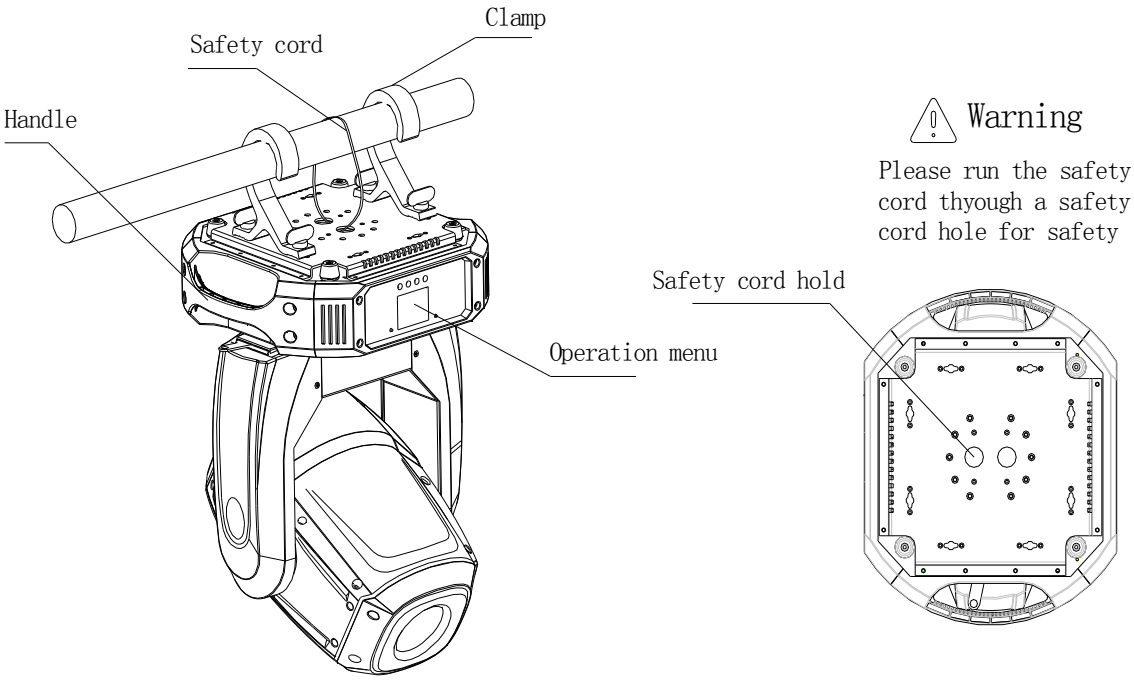
Exterior surface temperatures of the luminaire after 5 minutes operation is 45℃, when steady state is achieved 50℃,

There is no user serviceable parts inside the projector, do not open the housing and never operate the projector with the covers removed.

If you have any questions, don’t hesitate to consult your dealer or manufacturer.

Always disconnection from Power before a device’s installation, cleaning and maintenance!

INSTALL THE PROJECTOR



Take 2 clamps and the safety cord out from the package and mount 2 clamps on the underside of fixture with 2 retainers attached to each clamp. Hang the fixture on the structure and fasten the screws attached to each clamp. (See the **WARNING** on the underside of the base as shown above) **To pass SAFETY CORD through 1 HOLE for safety!** Always ensure that the projector is firmly anchored to avoid vibration and slipping whilst functioning. Always ensure that the structure that you are going to mount the projector is secure and is strong enough to support a weight of each projector.

WARNING:
1. A device MUST be lifted or carried by its HANDLES instead of clamps.
2. For safety the safety cord should afford 10 times the unit's weight.

POWER SUPPLY-MAINS

Connect the power cord as follows:

L (live) =brown

E (earth) =yellow/green

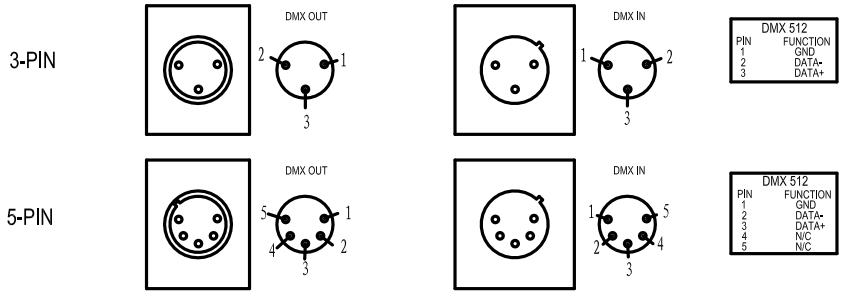
N (neutral) =blue

Use the plug provided to connect the mains power to the projector paying attention to the voltage and frequency marked on the panel of the projector. It is recommended that each projector be supplied separately so that they may be individually switched on and off.

IMPORTANT

It is essential that each projector is correctly earthed and the electrical installation conforms to all relevant standards.

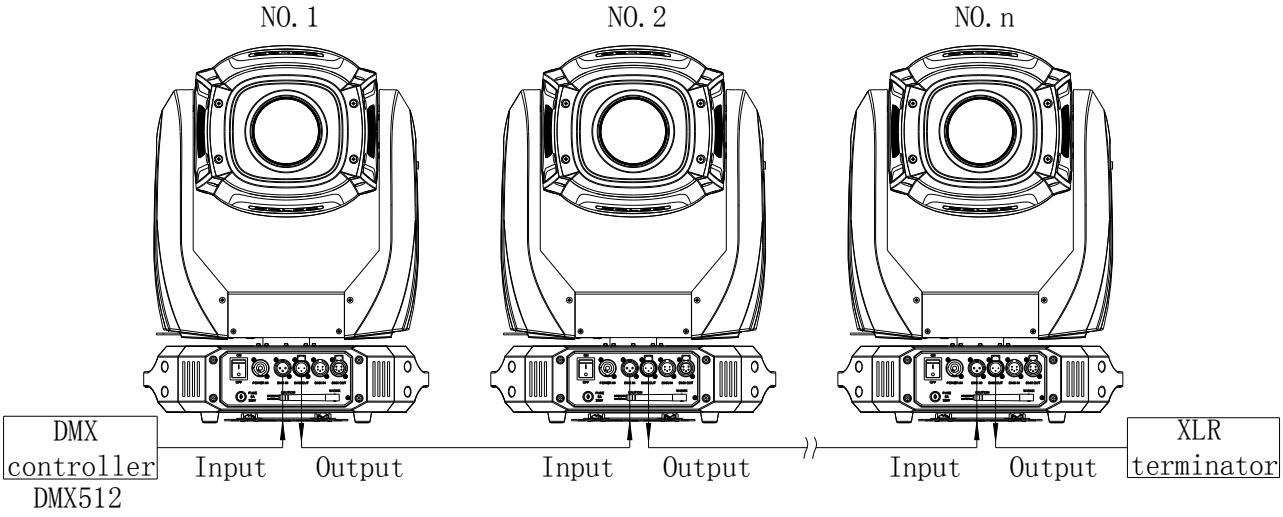
CONTROL CONNECTION



Connection between controller and projector and between one projector and another must be made with a 2 core-screened cable, with each core having at least a 0.5mm diameter. Connection to and from the projector is via cannon 5 pin (which are included with the projector) or 3 pin XLR plugs and sockets. The XLR's are connected as shown in the figure above.

Note: care should be taken to ensure that none of the pins touch the metallic body of the plug or each other. The body of the plug is not connected in any way. The projector accepts digital control signals in protocol DMX512 (1990).

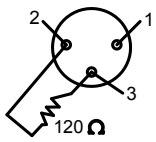
Connect the controller's output to the first fixture's input, and connect the first fixture's output to the second fixture's input and connect the rest fixtures in the same way. Eventually connect the last fixture's output to a DMX terminator as shown in the figure below.



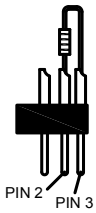
DMX TERMINATOR

In the Controller mode, at the last fixture in the chain, the DMX output has to be connected with a DMX terminator. This prevents electrical noise from disturbing and corrupting the DMX control signals.

The DMX terminator is simply an XLR connector with a 120Ω (ohm) resistor connected across pins 2 and 3, which is then plugged into the output socket on the last projector in the chain. The connections are illustrated below.

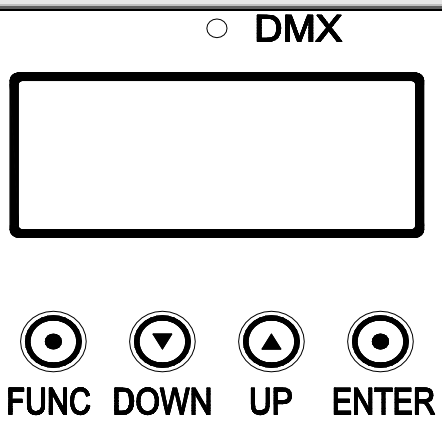


DMX TERMINATOR
CONNECTION
Connect a 120Ω(OHM) resistor across pins 2 and 3 in an XLR plug and insert into the DMX out socket on the last unit in the chain.



SETUP OPTIONS-PROJECTOR CONFIGURATION

PR-8157



A device configuration can be set conveniently via pressbutton switch and LCD display.

Launch the projector. Press button ENTER more than 5 seconds to unlock panel, LED display shows functional menus which have their own sub-menus for designated functions, the below is the details

Press button UP or DOWN if you want to browse through the various Setup Options.

Press button ENTER to save your settings or enter the next menu.

Press button UP or DOWN to shift.

Press button FUNC, it will return to the upper menu one by one. If you stay for minutes defaulted will show display status automatically.

TO SET THE DMX START ADDRESS

Each projector must be given a DMX start address so that the correct projector responds to the correct control signals. This DMX start address is the channel number from which the projector starts to "listen" to the digital control information being sent out from the controller. The fixture have 3 DMX modes. There are standard mode, extended mode and short mode. For example standard mode has 21 channels, so set the No. 1 projector's address 001, No. 2 projector's address 022, No. 3 projector's address 043, No. 4 projector's address 064, and so on.
Launch the projector. Press button ENTER more than 5 seconds to unlock panel.

Press button FUNC to display **DMX address**;

Press button UP and DOWN, you can set the address;

Press button ENTER to confirm, after powered next time, the last saved settings will be showed.

Press button FUNC, it will return to the upper menu one by one.

STAND-ALONE MODE

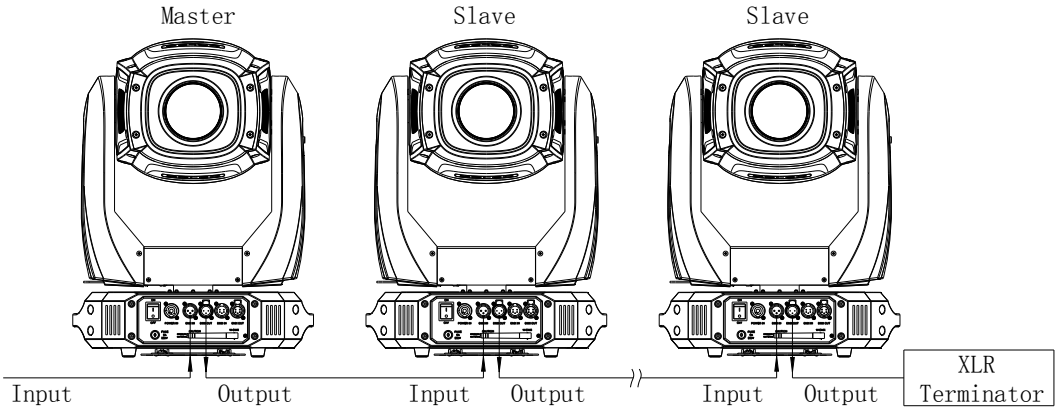
Operate the projector without connecting a controller, enable the master mode in the operation panel, the projector will run in Stand-Alone mode automatically.
DMX address can be set without limitations.

MASTER/SLAVE MODE

Many projectors can run synchronously in the Master/Slave mode by linking them with each other. Select one projector as the master with setting options at any mode of master's modes enabled and make the other projectors as the slaves with setting options slave mode enabled and their DMX start address "001".

Using XLR-XLR cables, Connect the first fixture's output to the second fixture's input, and connect the second fixture's output to the third fixture's input and connect the rest fixtures in the same way. Eventually connect the last fixture's output to a DMX terminator as shown in the figure below.

After powered, the group will run in synchronous Master/Slave Mode.



OPERATION MENU

1st LEVEL	2nd LEVEL		1rd LEVEL	1th LEVEL
DMX Address	XXX （1~499）			
Reset	Are You Sure			
Config Settings	DMX Mode （Default is：Standard）		Standard 19	
			Short 15	
			Extended 23	
	Pan Tilt Swap （Default is：OFF）		OFF	
			ON	
	Pan &Tilt Invert （Default is：OFF）		OFF	
			ON	
	Wireless Mode （Default is：XLR First）		XLR First	
			XLR Only	
			Wireless Only	
			Wireless First	
			Wireless To XLR	
	Unlink Wireless		YES	
	MasterSlaveSelec （Default is：slave）		Slave	
			Master	
	FactorySettings		YES	
	ParameterTransm		YES	
	Display Options		Language	English / Chs
			Display Mode	Off After Delay / On Always
			Display Reverse	OFF / ON
			Display Contrast	0~18
Information	Power On Hours		XXXX	
	Software Version		X.X.X	
Test Mode	Self Test		YES	
		Lamp LED	OFF	
			On	
		Colour Wheel	White	
			Colour 1 –Colour8	
			Rotation	
			Stop rotating	
			Reverse Rotation	

	Manual Test	IRIS	No	
			Effect 1	
			Effect 2	
			Effect 3	
		F-Gobo wheel	NO Gobo	
			Gobo 1 - Gobo 7	
			Rotation	
			Reverse Rotation	
			Shake 1 ~ 6	
		Rotating Gobo	NO Gobo	
			Gobo 1 - Gobo 7	
			Rotation	
			Reverse Rotation	
			Shake 1 ~ 6	
		Gobo rotation	Stop rotating	
			Rotation	
			Reverse Rotation	
		Prism Set	NO	
			Have	
		Prism Rotate	Stop	
			Rotation	
			Reverse Rotation	
		Focus	0-255 Linearly focusing	
		Zoom	0-255 Linearly Zoom	
		Pan Location	0-255	
		Tilt Location	0-255	
		Pan &Tilt Speed	0-255	
Operation Mode	DMX Operation DMX			
	Preset Memory			
	User Process			
	Static Scene 1～16		CH1 Strobe	0-255
			CH2 Dimmer	0-255
			CH3 Colour Wheel	0-255

		CH4 Iris	0-255
		CH5 F-Gobo wheel	0-255
		CH6 R-Gobo	0-255
		CH7 Gobo-R	0-255
		CH8 Prism Set	0-255
		CH9 Prism Rotate	0-255
		CH10 Focus	0-255
		CH11 Zoom	0-255
		CH12PanLocation	0-255
		CH13TiltLocatio	0-255
		CH14 Keep Time	0~25

Remark:

1. In the synchronous control of multiple projectors parameters can be transmitted from the master including: DMX mode, display setting, operation mode(user memory data included);

2. All projectors Accepting parameters will automatically be set to slave mode.

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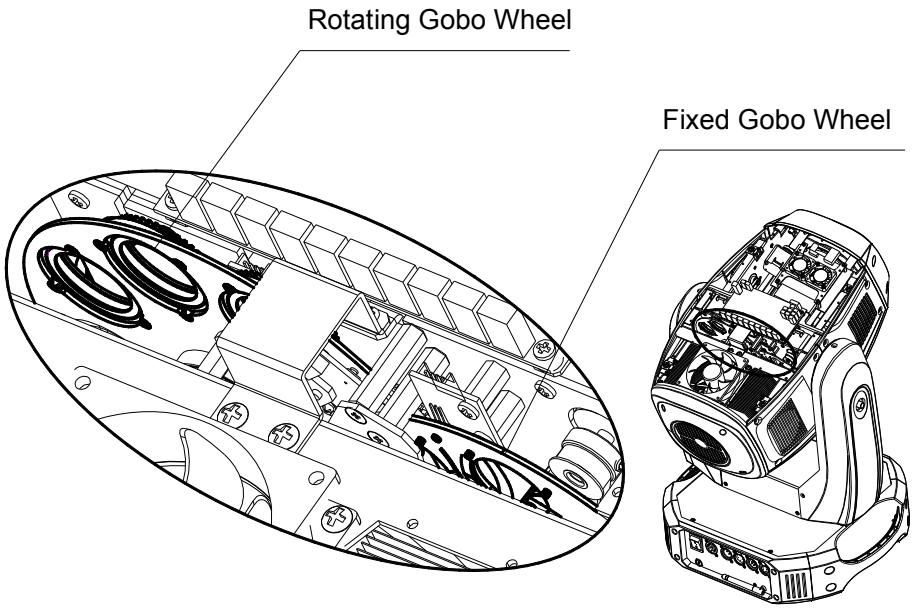
REPLACING GOBOS



Disconnect the fixture from power. Carefully lift off the cover by undoing the 4 fast-fit screws.

Before the replacement of fixed gobos, take leaf spring out using finger, push the gobos out carefully and insert new gobos.

For rotating gobos: take rotating gobo wheel out by hand, push gobos out after pulling out leaf springs. Insert new gobos into gobo holders, then insert leaf spring back and make sure it is in narrow ring groove in the holder, i.e. internal ring groove in the holder, then flatten it. At last, use appropriate tool to push tightening spring back, then put the holder back into the wheel by another hand.

Note: If the gobo is a glass one, it should be touched with glabrous, clean and soft tissue or cloth matted between hand and glass instead of with bare hand.

Close the rear cover and fasten 4 fast-fit screws.

DMX PROTOCOL

Short mode	Standard mode	Extended mode	FUNCTION	DMX	DESCRIPTION
1	1	1	Strobe	000-015	black
				016-255	Strobe speed from slow to fast
2	2	2	Dimmer	000-255	Dimming from dark to light (0-100%)
		3	Dimmer Fine	000-255	Dimmer in 16 Bit precision
3	3	4	Color Wheel	000-015	White
				016-031	Color 1
				0320-47	Color 2
				048-063	Color 3
				0640-79	Color 4
				080-095	Color 5
				096-111	Color 6
				112-127	Color 7
				128-143	Color 8
				144-175	Rotation(From Slow to Fast)
				176-223	Stop at White
				224-255	Reverse Rotation(From Slow to Fast)
4	4	5	Iris	000-207	From big to Small
				208-223	Iris effect 1
				224-239	Iris effect 2
				240-255	Iris effect 3
		6	Iris Fine	000-255	Iris in 16 Bit precision
5	5	7	Fixed Gobo Wheel	000-015	White
				016-031	Gobo1
				032-047	Gobo 2
				048-063	Gobo 3
				064-079	Gobo 4
				080-095	Gobo 5
				096-111	Gobo 6
				112-127	Gobo 7
				128-143	Rotation from slow to fast
				144-159	Reverse rotation from slow to fast
				160-175	Gobo shake 1 from fast to slow
				176-191	Gobo shake 2 from fast to slow
				192-207	Gobo shake 3 from fast to slow
				208-223	Gobo shake 4 from fast to slow
				224-239	Gobo shake 5 from fast to slow
				240-255	Gobo shake 6 from fast to slow
6	6	8	Rotating Gobo Wheel	000-015	white
				016-031	Gobo1

				032-047	Gobo 2
				048-063	Gobo 3
				064-079	Gobo 4
				080-095	Gobo 5
				096-111	Gobo 6
				112-127	Gobo 7
				128-143	Rotation speed from slow to fast
				144-159	Reverse rotation from slow to fast
				160-175	Gobo shake 1 from fast to slow
				176-191	Gobo shake 2 from fast to slow
				192-207	Gobo shake 3 from fast to slow
				208-223	Gobo shake 4 from fast to slow
				224-239	Gobo shake 5 from fast to slow
				240-255	Gobo shake 6 from fast to slow
7	7	9	Gobo rotation	000-207	0~540°indexable
				208-223	Gobo rotation from slow to fast
				224-239	Stop rotating
				240-255	Reverse rotation from slow to fast
	8	10	Gobo rotation Fine	000-255	Gobo rotation in 16 Bit precision
8	9	11	Prism	000-019	White
				020-255	Prism
9	10	12	Prism rotation	000-063	Stop rotating
				064-127	Prism rotation from slow to fast
				128-191	Stop rotating
				192-255	Reverse rotation from slow to fast
10	11	13	Focus	000-255	Linearly focusing
		14	Focus Fine	000-255	Focus in 16 precision
11	12	15	Zoom	000-255	Linearly focusing
		16	Zoom Fine	000-255	Focus in 16 precision
12	13	17	Pan	000-127	Pan rotation 0°~ 540°
				128-191	continuous rotation, from slow to fast
				192-255	Reverse continuous rotation, from slow to fast
	14	18	Pan Fine	000-255	Pan rotation in 16 precision
13	15	19	Tilt	000-255	Tilt rotation 0°~270°
	16	20	Tilt Fine	000-255	Tilt rotation in 16 precision
	17	21	Tilt movement	0	No
				1-9	Effect 1(speed from fast to slow)
				10-19	Effect 2(speed from fast to slow)
				20-29	Effect 3(speed from fast to slow)
				30-39	Effect 4(speed from fast to slow)
				40-49	Effect 5(speed from fast to slow)
				50-59	Effect 6(speed from fast to slow)
				60-69	Effect 7(speed from fast to slow)
				70-79	Effect 8(speed from fast to slow)
				80-89	Effect 9(speed from fast to slow)
				90-99	Effect 10(speed from fast to slow)

				100-109	Effect 11(speed from fast to slow)
				110-119	Effect 12(speed from fast to slow)
				120-129	Effect 13(speed from fast to slow)
				130-139	Effect 14(speed from fast to slow)
				140-149	Effect 15(speed from fast to slow)
				150-159	Effect 16(speed from fast to slow)
				160-169	Effect 17(speed from fast to slow)
				170-179	Effect 18(speed from fast to slow)
				180-189	Effect 19(speed from fast to slow)
				190-199	Effect 20(speed from fast to slow)
				200-209	Effect 21(speed from fast to slow)
				210-219	Effect 22(speed from fast to slow)
				220-229	Effect 23(speed from fast to slow)
				230-239	Effect 24(speed from fast to slow)
				240-255	Effect 25(speed from fast to slow)
	18	22	Pan & tilt speed	0-255	Pan & tilt speed from fast to slow
14	19	23	Control	000-049	Reserved
				050-255	Reset

INDICATION OF LED DIGITAL TUBE

Decimal point of the first digital tube	On	DMX signal OK
	Off	No DMX signal
Decimal point of the third digital tube	On	Master / slave signal is OK
	Off	No master / slave signal
Decimal point of the fourth digital tube	On	When setting master mode
	Off	When setting slave mode
Parameters that LED digital tubes display	Flash	Parameters not saved, press "ENTER" to save them

MAINTENANCE

If the projector does not function, check the fuses on the power socket of the projector, they should only be replaced by fuses of the same specification. Should these be damaged call a qualified technician before replacement. The projector has thermal protection device that will switch off the projector in case of overheating, should either of these operate, check that the fans are not blocked, and if they are dirty clean them before switching on the projector again. Check that the fans are operational, if not call a qualified technician.

Any maintenance work should only be carried out by qualified technicians.

LUBRICATION

To ensure the continuous rotation of the rotating gobos and linear motion of the lens for focusing, it is recommended that the bearings for the rotating gobos and the 2 shafts for the focusing lens holder be lubricated periodically, preferably every two months. Use only high quality, high-temperature resistant grease instead of any type of oil. When lubricating
the bearings, a syringe with a fine needle is the easiest way to introduce the grease to the bearings around each gobo.

KEEPING THE PROJECTOR CLEAN

To ensure the reliability of the projector it should be kept clean. It is recommended that the fans should be cleaned every 15 days. The lens and dichroic colour filters should also be regularly cleaned to maintain an optimum light output. **Do NOT use any type of solvent on dichroic colour filters.**

Cleaning frequency depends on the environment in which the fixture operates: damp, smoke or particularly dirty surroundings can cause greater accumulation of dirt on the unit's optics. A soft cloth and typical glass cleaning products should be used in cleaning. It is recommended to clean the external optics at least once every 20 days and clean the internal optics at least once every 30 / 60 days.

Do not use any organic solvent, e.g. alcohol, to clean the reflector mirror, dichroic colour filters or housing of the apparatus.

TROUBLESHOOTING

PROBLEM	ACTION
The projector doesn't switch on	➢ Check the fuse on the power socket. ➢ Replace the lamp.
The lamp comes on but the projector doesn't respond to the controller	➢ Make sure that the projector is correctly configurated. ➢ Replace or repair the DMX cable.
The projector only functions intermittently	➢ Make sure the fan is working and not dirty.
Defective projection	➢ Check the lenses are not broken. ➢ Remove dust or grease from the lenses.
The project image appears to have a halo	➢ Make sure the lamp is installed correctly. ➢ Carefully clean the optical group lenses and the projector components.
The beam appears dim	➢ Check the optics is clean. ➢ Replace with a new lamp of the specified type and rating.

TECHNICAL DATA

VOLTAGES:

100V/120V/200V/220V/230V/240V AC，50/60Hz

POWER CONSUMPTION:

240W@220V

LIGHT SOURCE:

150W white LED

COLOURS:

1color wheel: 8 colors +white

With variable speed bi-directional rainbow effect

Step/linear colour changing is available

GOBOS:

1 Rotating gobo wheel:

8 interchangeable gobos+ white, glass or metal gobos can be fixed

Indexable , bi-directionally rotatable and Wheel Scrolling at variable speeds, shakable at variable speeds

1 Fixed gobo wheel :

7 interchangeable gobos+ white

bi-directional wheel scrolling at variable speeds, shaking at variable speeds

Gobo diameter: Φ24mm

Gobo image diameter: Φ20mm

PRISM:

1x3 facet prism, bi-directionally rotatable at variable speeds

IRIS:

Linearly adjusted with Macro

FOCUS:

linearly focusing controlled by DMX

DIMMER:

0-100% linearly adjustable

STROBE:

Electronic strobe, 0.3~20 F.P.S

HEAD MOVEMENT:

Pan continuous rotation, Tilt 270º with auto position correction

Swap and Invert functions of Pan and Tilt

BEAM ANGLE:

14°～30°linear adjustment

CONTROL:

DMX512, 3 pin, 5 pin interfaces

17 channels in short mode, 21 channels in standard mode, and 28 channels in extended mode.

Master/slave mode

Stand-alone mode

Self-test mode

OTHER FUNCTIONS:

Adjustable Pan & Tilt speed

Fixture usage time display

Software version display

DMX512 wireless Function

Optional DMX512 wireless remitter

HOUSING:

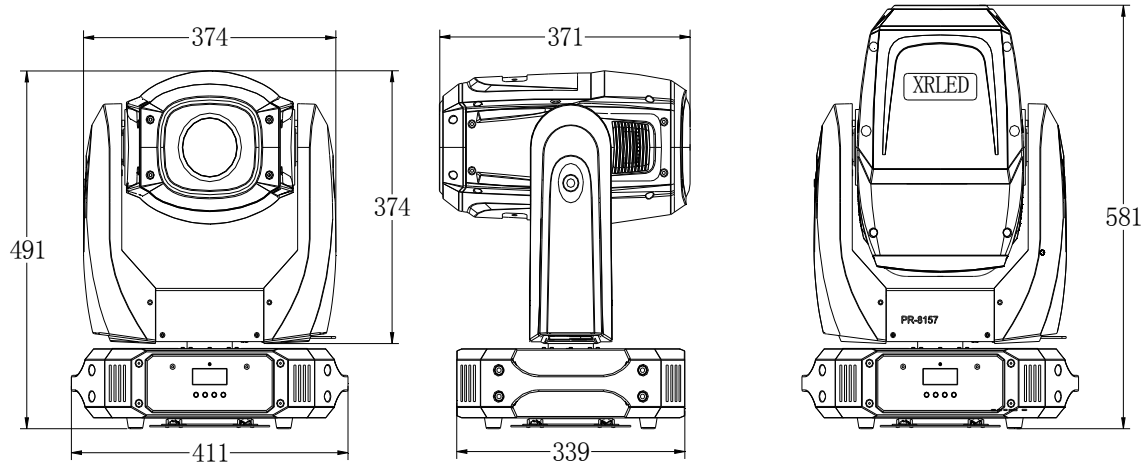
High Temperature Composite plastic, IP20

WEIGHT:

17.5Kg

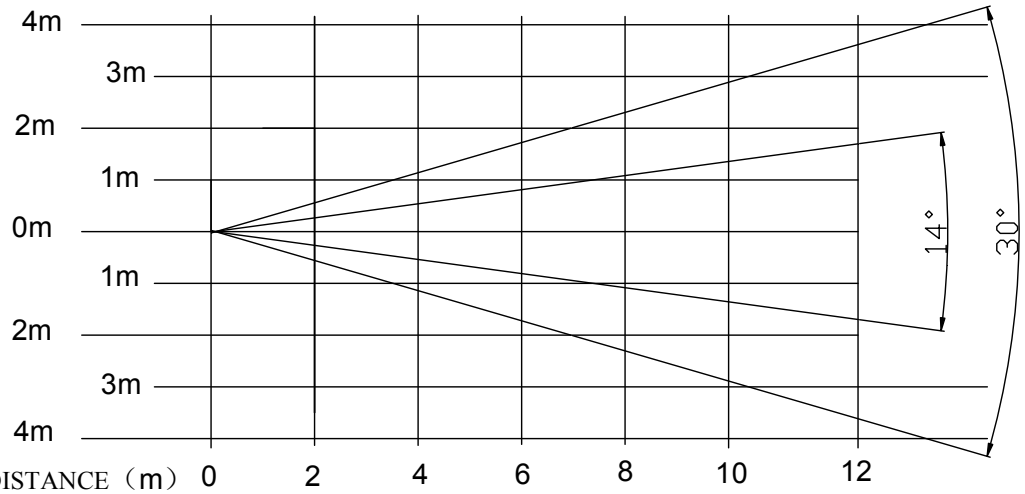
SIZES:

See at below



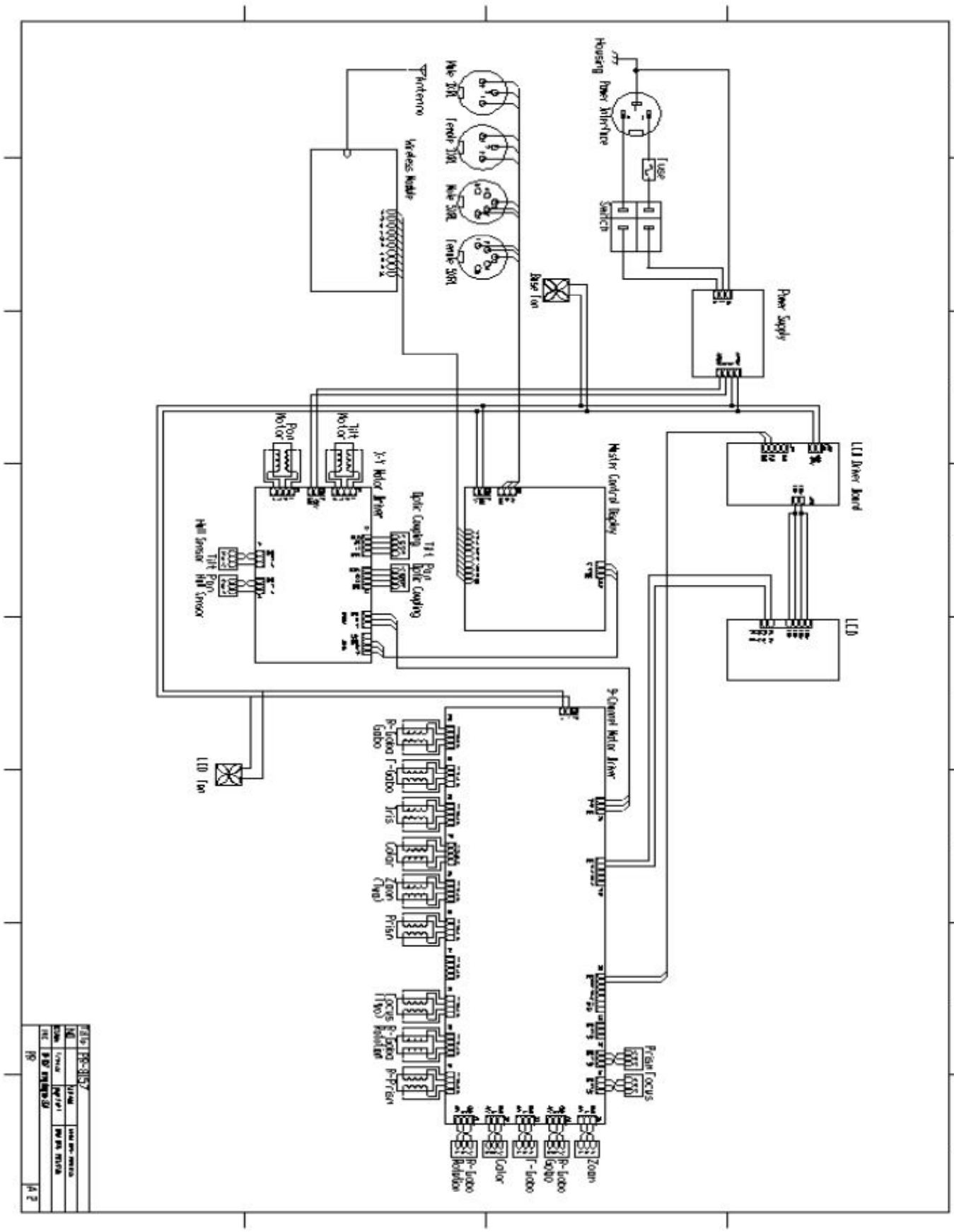
LIGHT OUTPUT:

14°lux(RGB)	0	4755	1289	528	297	190	132
30°lux(RGB)	0	2644	759	338	190	122	84



DISTANCE（m）	0	2	4	6	8	10	12
14° DIAMETER（m）	ø0	ø0.60	ø1.01	ø1.71	ø2.46	ø2.72	ø3.4
30°DIAMETER（m）	ø0	ø1.87	ø2.75	ø3.62	ø4.89	ø5.97	ø7.84

ELECTRICAL DIAGRAM



COMPONENT ORDER CODES

NAME	PART NO.	QUANTITY	REMARK
300W POWER SUPPLY	192010168	1	
150W LIGHT SOURCE	150020271	1	
5A FUSE	270041045	1	5X20 , 5A/250V TIME DELAY
TILT BELT	290151339	1	
PAN BELT	290151258	1	
HEAD BOTTOM FAN	016081705	1	
BASE FAN	016081703	1	
PAN MOTOR	030040205	1	
TILT MOTOR	030040190	1	
CONSTANT CURRENT SUPPLY	192010167	1	
PAN/TILT DRIVE PCB	230060224	1	
MOTOR DRIVE PCB	230060225	1	
DISPLAY PCB	230060142	1	

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